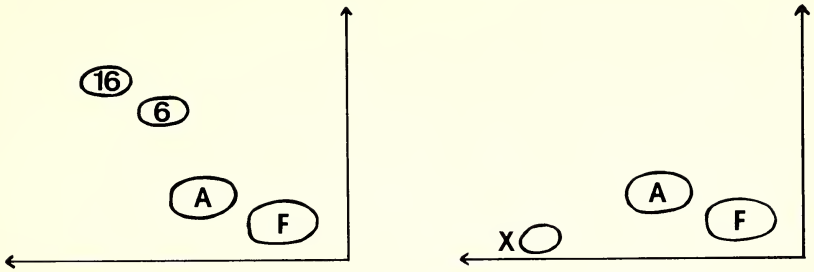

FIG. 5. Drawings of two dimensional chromatographic patterns of flavonoids in *C. cordylocarpa* (horizontal axis = tertiary butyl alcohol run; vertical axis = 15% acetic acid run); left, profile of leaves; right, profile of floral tissues.

chert, Sorensen, & Crawford 6354 (IA, RM); among boulders of swift stream, ca. 3 mi W of Cuaulta along road to Los Volcanes and Puerto Vallarta, *Melchert, Sorensen, & Crawford 6371* (IA, RM); among boulders of rocky stream bed 12.5–13 mi N of Zapopan, along dirt road to San Cristóbal de la Barranca, *Melchert, Sorensen, & Crawford 6347 A-B* (IA, RM); Hwy. 41, 7–8 mi N of Guadalajara, *Carman 68-60* (IA, RM).

ACKNOWLEDGEMENTS

The research was supported by NSF Grant GB-3851 to T. E. Melchert, University of Iowa, whose guidance during the study is much appreciated. Thanks are also due R. L. Hulbary, University of Iowa, who prepared the photographs of the floral heads, and to J. R. Reeder and Charlotte G. Reeder for helpful suggestions during the preparation of the paper. Ruby S. Quarterman, Laramie, executed the drawings of the achenes.

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NOTES AND NEWS

NOTES ON THE FLORA OF THE PACIFIC NORTHWEST.—Extensive collections from Pend Oreille Co., Washington, were made by the author in connection with a floristic study (Layser, E. F. A floristic study of Pend Oreille County, Washington. M.S. thesis, State Univ. New York, College Forestry. 1969). Among the collections, certain ones seem worth special note.

Berteroa incana (L.) DC., a weedy European crucifer, was collected along the roadside in the northern part of Pend Oreille Co. (*Layser 1175,* WS) and previously

was known in the Pacific Northwest from British Columbia, Idaho, and Montana.

Carex sychocephala Carey, was reported by C. L. Hitchcock, et al. (Vascular plants of the Pacific Northwest, 5 vols., Univ. Washington Press. 1955–1969) from the Pacific Northwest from Montana, Kamloops, British Columbia, and Okanogan Co., Washington, and was noted as being "Seldom collected in our range." Since then it was found along a slough of the Pend Orielle River (*Layser 1201,* WS).

A hitherto undescribed form of *Crepis* was discovered at two different localities 10 miles apart. With respect to the polyploidy and apomictic induced polymorphic nature of this group, it is being treated as an anomalous form within a heteroploid complex (Babcock, E. B., and G. L. Stebbins. The American species of Crepis. Publ. Carnegie Inst. Wash. 504. 1938). The decision to recognize this form is based on its diverse morphology and its distribution.

Crepis atrabarba Heller ssp. originalis Babc. & Stebb. forma **pend-oreillensis** Layser, forma apm. nov. Caulis 3–5 dm alta; basalia folia linearis, 8–20 mm. longa, 2–6 mm lata, non pinnata vel rudimentaria; folia caulis linearis, dimidia supra; inflorescentia cymosa, axia centralis; capitulis 3–8; involucra 10–12 mm longa, tomentosa; flosculi 12–13; coma 7–8 mm longa; achenia viridula, 8 mm longa.

Material examined. Washington: Pend Oreille Co. Dry, rocky slopes in Dry Canyon, south of Cato Creek, Sec. 23, T37N, R37E, alt. 4000 ft., *E. F. Layser 894* (WS-holotype), June 1969; dry, shallow-soiled rocky slopes on Hall Mt., alt. 3500 ft., *E. F. Layser 830* (WS), June 8, 1969.

Geum rivale L. was known in Washington from one locality in Okanagon Co. (Thomson, J. W. Notes on the flora of the state of Washington. Rhodora 36:8–13. 1934). It has now been found in wet meadows in Pend Oreille Co. (*Layser 127,* WS).

Hieracium aurantiacum L. was noted by Hitchcock, et al. (op. cit.) to occur at Bremerton, Washington. The species is not uncommon along roadsides in the northern part of Pend Oreille Co. (*Layser 891,* NY, WS). This weedy species is rapidly becoming established in the Pacific Northwest.

Hieracium pratense Tausch, an aggressive European weed naturalized in eastern North America, has become established in the northern part of Pend Oreille Co. (*Layser 829,* NY, WS). This constitutes the first report of it from the Pacific Northwest, where it appears to have been introduced through erosion control seedlings of logging skid roads and road banks.

Mertensia platyphylla Heller was found in Pend Oreille Co. (*Layser 134,* F) and is the first report of this species east of the Cascades. The significance of this collection may involve more than a range extension, that is, a reassessment of the taxonomic affinities of *M. paniculata* (Ait.) G. Don. and *M. platyphylla* may be in order. Formerly these two species were thought to be allopatric. Evidence to the contrary not withstanding, this collection may provide support to the statement by Hitchcock (op. cit.) that *M. platyphylla* might better be considered a variety of *M. paniculata.*

Penstemon ellipticus Coult. & Fisch, is not uncommon in the northern part of Pend Oreille Co. and adjacent Stevens Co. on mountain peaks above 6000 ft. in elevation (*Layser 503, 867,* WS), and is an addition to Washington's flora.

Ranunculus longirostris Godr. was collected from Pend Oreille Co. (*Layser 80,* POM, WS) and is new for the state of Washington.

Sorbaria arborea Schneid, the cultivated false spirea, is occasionally found about old abandoned homesteads, where it reproduces and maintains itself by suckering (*Layser 1143,* WS).

Stellaria calycantha (Ledeb.) Bong. var. *calycantha* represents a new variety for Washington. It was collected in the northern part of Pend Oreille Co. (*Layser 310,* NY, WS). This variety is known from high latitudes in North America and was also reported from Oregon (Fernald, M. L., Gray's manual of botany. American Book Co., New York. 1950).—Earle F. Layser, Department of Botany, Washington State University, Pullman 99163.